

as shown in figure 2, by plying a single yarn, out of 100% metal fibres 15, with other single yarns 16 and 17, e.g. made 100% out of an other heat resistant fibre, or a blend out of two or more different heat resistant fibre types. The type of heat resistant fibres used to make the different single yarns 16 and 17 are not necessarily the same types, and the compositions are not necessarily the same. These single yarns 15, 16 and 17 can be multifilament yarns or spun yarns, e.g. rotor- or open end spun yarn, or ringspun yarn.

10 An other way of incorporating metal fibres in the yarns is by plying different single yarns, from which at least one single yarn consists is a blend of metal fibres and at least one non metallic, high temperature resistant fibre type. This is shown in figure 3, where single yarn 18 is made out of metal fibres 21 and non metallic fibres 22. The other single
15 yarns 19 and 20 are e.g. made 100% out of other heat resistant fibres, or a blend out of two or more different heat resistant fibre types. The type of heat resistant fibres used to make the different single yarns 18, 19 and 20 are not necessarily the same types, and the compositions are not necessarily the same. The single yarns 18, 19 and 20 can be
20 multifilament yarns or spun yarns, e.g. rotor- or open end spun yarn, or ringspun yarn.

Some embodiments of the present invention is given in the table
25 underneath, where for different knitted structures, gauge, yarn Nm and knitting structure are given, together with the number of stitches per cm², thickness, weight and air permeability. All yarns used for these examples are made out of 100% stainless steel fibres, with fibre diameters of 12µm. The alloy used is AISI 316L.

Embodiment	gauge	structure	yarn (Nm)	stitches (/cm ²)	air permeability (l/ 10cm ² *h)	thickness (mm)	weight (g/m ²)
embodiment 1	16	single jersey 1/3	7.5	91	6720	1.00	882
embodiment 2	20	single jersey 1/2	5.5	94.1	4550	1.25	1010
embodiment 3	20	single jersey 1/2	7.5	100.3	6750	1.00	741
embodiment 4	20	single jersey 1/3	5.5	101.1	3540	1.5	1192
embodiment 5	20	single jersey 1/3	7.5	124.5	4365	1.25	990
embodiment 6	20	single jersey 1/4	7.5	111.1	4639	1.35	1090
embodiment 7	24	single jersey 1/2	5.5	96.7	5720	1.05	1016
embodiment 8	24	single jersey 1/2	7.5	106.0	8960	0.8	757
embodiment 9	24	single jersey 1/3	5.5	109.3	4836	1.20	1121
embodiment 10	24	single jersey 1/3	7.5	123.6	5200	1.10	986
embodiment 11	24	single jersey 1/3	10	136.6	5800	0.95	826
embodiment 12	24	single jersey 1/4	5.5	96.1	3828	1.4	1320
embodiment 13	24	single jersey 1/4	7.5	114.5	4970	1.3	948

The air permeability is measured conform the international standard ISO 9237. Thickness is measured conform ISO 5084 and weight is measured conform ISO 3801.

5

The knitting structure is the way how the different stitches are made out of different yarns.

10

Figures 4 to 7 explains what is meant by the knitting structures single jersey 1/2, single jersey 1/3, single jersey 1/4 and single jersey 1/5.

15

Figure 4 shows the knitting structure "single jersey 1/2" 23, where each row of stitches 24 is made out of two yarns 26 and 27. The first yarn 26 makes stitches on every second needle 25 on the needle bed, where the second yarn 27 is only knitted in the same stitch row on the needles 27 which are not used by yarn 26. As seen in figure 5, "single Jersey 1/3" 28 needs three yarns 29, 30 and 31 to make one stitch row, because each yarn makes a stitch on every third needle. Figure 6 shows "single jersey 1/4" 32, where a yarn 33, 34, 35 or 36 is knitted every fourth needle and so 4 yarns are used to make one row of stitches. In the same sense, Figure 7 shows "single jersey 1/5" 37, where a yarn 38, 39, 40, 41 or 42 is knitted every fifth needle and so 5 yarns are used to make one row of stitches.

20